UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,436	02/14/2001	Corine A. M. Vernet	15966-672	1641

7590 09/03/2002

Ivor R. Elrifi
Mintz, Levin, Cohn, Ferris
Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111

EXAMINER	
KERR, KATHLEEN M	
ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 09/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/783,436	VERNET ET AL.	
	Examiner	Art Unit	
	Kathleen M Kerr	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. .
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-43* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Application Status

1. Claims 1-43 are pending in the instant application.

Restriction

2. Restriction to one of the following inventions (Groups) is required under 35 U.S.C. § 121. Due to the complex nature of the Markush groupings in the claims, larger, SuperGroups are noted below for ease of demonstrating distinctness and clarity of explanation. The Examiner expressly notes that a **Group**, not a SuperGroup, must be elected.

SuperGroup A. Claims 1-4, 29, 32, drawn to **polypeptides**, classified in class 530, subclass 350.
SuperGroup B. Claims 5-14, 30, and 33, drawn to **nucleic acid molecules**, vectors, and host cells, classified in class 435, subclass 252.3.
SuperGroup C. Claims 15-17, 31, and 34, drawn to **antibodies**, classified in class 530, subclass 387.1.
SuperGroup D. Claim 18, drawn to **methods** of detecting a polypeptide **using antibodies**, classified in class 435, subclass 7.1.
SuperGroup E. Claim 19, drawn to **methods** of **detecting a nucleic acid**, classified in class 435, subclass 6.
SuperGroup F. Claim 20, drawn to **methods** of **detecting an agent** that binds a polypeptide **using** said **polypeptide**, classified in class 435, subclass 7.1.
SuperGroup G. Claim 21, drawn to **methods** of **identifying therapeutics using host cells** expressing a polypeptide, classified in class 435, subclass 29.
SuperGroup H. Claim 22, drawn to **methods** for **modulating activity** of a polypeptide **using a host cell** expressing said polypeptide, classified in class 435, subclass 7.71.
SuperGroup I. Claims 23-24 and 42, drawn to **methods for treating** a pathology **using a polypeptide**, classified in class 514, subclass 12.
SuperGroup J. Claim 25-26, drawn to **methods for treating** a pathology **using a nucleic acid**, classified in class 514, subclass 44.
SuperGroup K. Claims 27-28 and 43, drawn to **methods for treating** a pathology **using an antibody**, classified in class 424, subclass 130.1.
SuperGroup L. Claim 35, drawn to **uses of a polypeptide** in the manufacture of treatment, classified in class 530, subclass 350.
SuperGroup M. Claim 36, drawn to **uses of a nucleic acid molecule** in the manufacture of treatment, classified in class 536, subclass 23.1.
SuperGroup N. Claim 37, drawn to **uses of an antibody** in the manufacture of treatment, classified in class 530, subclass 387.1.
SuperGroup O. Claims 38-39, drawn to **methods** for screening for modulators **using recombinant expression** of a polypeptide in a (transgenic) animal, classified in class 800, subclass 3.
SuperGroup P. Claim 40, drawn to **meth ds** for determining disposition to a disease involving levels of polypeptide in a mammalian subject, classified in class 530, subclass 412.
SuperGroup Q. Claim 41, drawn to **methods** for determining disposition to a disease involving levels of nucleic acids in a mammalian subject, classified in class 536, subclass 23.1.

SuperGroup A. Claims 1-4, 29, 32, drawn to **polypeptides**, classified in class 530, subclass 350. Divided into the following Groups:

1. Claims in SuperGroup A related to SEQ ID NO:2.
2. Claims in SuperGroup A related to SEQ ID NO:4.
3. Claims in SuperGroup A related to SEQ ID NO:6.
4. Claims in SuperGroup A related to SEQ ID NO:8.
5. Claims in SuperGroup A related to SEQ ID NO:10.
6. Claims in SuperGroup A related to SEQ ID NO:12.
7. Claims in SuperGroup A related to SEQ ID NO:14.

SuperGroup B. Claims 5-14, 30, and 33, drawn to **nucleic acid molecules**, vectors, and host cells, classified in class 435, subclass 252.3. Divided into the following Groups:

8. Claims in SuperGroup B related to SEQ ID NOs: 1/2.
9. Claims in SuperGroup B related to SEQ ID NOs: 3/4.
10. Claims in SuperGroup B related to SEQ ID NOs: 5/6.
11. Claims in SuperGroup B related to SEQ ID NOs: 7/8.
12. Claims in SuperGroup B related to SEQ ID NOs: 9/10.
13. Claims in SuperGroup B related to SEQ ID NOs: 11/12.
14. Claims in SuperGroup B related to SEQ ID NOs: 13/14.

SuperGroup C. Claims 15-17, 31, and 34, drawn to **antibodies**, classified in class 530, subclass 387.1. Divided into the following Groups:

15. Claims in SuperGroup C related to SEQ ID NO: 2.
16. Claims in SuperGroup C related to SEQ ID NO: 4.
17. Claims in SuperGroup C related to SEQ ID NO: 6.
18. Claims in SuperGroup C related to SEQ ID NO: 8.
19. Claims in SuperGroup C related to SEQ ID NO: 10.
20. Claims in SuperGroup C related to SEQ ID NO: 12.
21. Claims in SuperGroup C related to SEQ ID NO: 14.

SuperGroup D. Claim 18, drawn to **methods** of detecting a polypeptide **using antibodies**, classified in class 435, subclass 7.1. Divided into the following Groups:

22. Claims in SuperGroup D related to SEQ ID NO: 2.
23. Claims in SuperGroup D related to SEQ ID NO: 4.
24. Claims in SuperGroup D related to SEQ ID NO: 6.
25. Claims in SuperGroup D related to SEQ ID NO: 8.
26. Claims in SuperGroup D related to SEQ ID NO: 10.
27. Claims in SuperGroup D related to SEQ ID NO: 12.
28. Claims in SuperGroup D related to SEQ ID NO: 14.

SuperGroup E. Claim 19, drawn to **methods** of **detecting a nucleic acid molecule**, classified in class 435, subclass 6. Divided into the following Groups:

29. Claims in SuperGroup E related to SEQ ID NOs: 1/2.
30. Claims in SuperGroup E related to SEQ ID NOs: 3/4.

31. Claims in SuperGroup E related to SEQ ID NOs: 5/6.
32. Claims in SuperGroup E related to SEQ ID NOs: 7/8.
33. Claims in SuperGroup E related to SEQ ID NOs: 9/10.
34. Claims in SuperGroup E related to SEQ ID NOs: 11/12.
35. Claims in SuperGroup E related to SEQ ID NOs: 13/14.

SuperGroup F. Claim 20, drawn to **methods** of **detecting an agent** that binds a polypeptide **using** said **polypeptide**, classified in class 435, subclass 7.1. Divided into the following Groups:

36. Claims in SuperGroup F related to SEQ ID NO: 2.
37. Claims in SuperGroup F related to SEQ ID NO: 4.
38. Claims in SuperGroup F related to SEQ ID NO: 6.
39. Claims in SuperGroup F related to SEQ ID NO: 8.
40. Claims in SuperGroup F related to SEQ ID NO: 10.
41. Claims in SuperGroup F related to SEQ ID NO: 12.
42. Claims in SuperGroup F related to SEQ ID NO: 14.

SuperGroup G. Claim 21, drawn to **methods** of **identifying therapeutics using host cells** expressing a polypeptide, classified in class 435, subclass 29. Divided into the following Groups:

43. Claims in SuperGroup G related to SEQ ID NOs: 1/2.
44. Claims in SuperGroup G related to SEQ ID NOs: 3/4.
45. Claims in SuperGroup G related to SEQ ID NOs: 5/6.
46. Claims in SuperGroup G related to SEQ ID NOs: 7/8.
47. Claims in SuperGroup G related to SEQ ID NOs: 9/10.
48. Claims in SuperGroup G related to SEQ ID NOs: 11/12.
49. Claims in SuperGroup G related to SEQ ID NOs: 13/14.

SuperGroup H. Claim 22, drawn to **methods** for **modulating activity** of a polypeptide **using a host cell** expressing said polypeptide, classified in class 435, subclass 7.71. Divided into the following Groups:

50. Claims in SuperGroup H related to SEQ ID NOs: 1/2.
51. Claims in SuperGroup H related to SEQ ID NOs: 3/4.
52. Claims in SuperGroup H related to SEQ ID NOs: 5/6.
53. Claims in SuperGroup H related to SEQ ID NOs: 7/8.
54. Claims in SuperGroup H related to SEQ ID NOs: 9/10.
55. Claims in SuperGroup H related to SEQ ID NOs: 11/12.
56. Claims in SuperGroup H related to SEQ ID NOs: 13/14.

SuperGroup I. Claims 23-24 and 42, drawn to **methods for treating** a pathology **using a polypeptide**, classified in class 514, subclass 12. Divided into the following Groups:

57. Claims in SuperGroup I related to SEQ ID NO: 2.
58. Claims in SuperGroup I related to SEQ ID NO: 4.
59. Claims in SuperGroup I related to SEQ ID NO: 6.
60. Claims in SuperGroup I related to SEQ ID NO: 8.

61. Claims in SuperGroup I related to SEQ ID NO: 10.
62. Claims in SuperGroup I related to SEQ ID NO: 12.
63. Claims in SuperGroup I related to SEQ ID NO: 14.

SuperGroup J. Claim 25-26, drawn to **methods for treating** a pathology **using a nucleic acid**, classified in class 514, subclass 44. Divided into the following Groups:

64. Claims in SuperGroup J related to SEQ ID NOs: 1/2.
65. Claims in SuperGroup J related to SEQ ID NOs: 3/4.
66. Claims in SuperGroup J related to SEQ ID NOs: 5/6.
67. Claims in SuperGroup J related to SEQ ID NOs: 7/8.
68. Claims in SuperGroup J related to SEQ ID NOs: 9/10.
69. Claims in SuperGroup J related to SEQ ID NOs: 11/12.
70. Claims in SuperGroup J related to SEQ ID NOs: 13/14.

SuperGroup K. Claims 27-28 and 43, drawn to **methods for treating** a pathology **using an antibody**, classified in class 424, subclass 130.1. Divided into the following Groups:

71. Claims in SuperGroup K related to SEQ ID NO: 2.
72. Claims in SuperGroup K related to SEQ ID NO: 4.
73. Claims in SuperGroup K related to SEQ ID NO: 6.
74. Claims in SuperGroup K related to SEQ ID NO: 8.
75. Claims in SuperGroup K related to SEQ ID NO: 10.
76. Claims in SuperGroup K related to SEQ ID NO: 12.
77. Claims in SuperGroup K related to SEQ ID NO: 14.

SuperGroup L. Claim 35, drawn to **uses of a polypeptide** in the manufacture of treatment, classified in class 530, subclass 350. Divided into the following Groups:

78. Claims in SuperGroup L related to SEQ ID NO: 2.
79. Claims in SuperGroup L related to SEQ ID NO: 4.
80. Claims in SuperGroup L related to SEQ ID NO: 6.
81. Claims in SuperGroup L related to SEQ ID NO: 8.
82. Claims in SuperGroup L related to SEQ ID NO: 10.
83. Claims in SuperGroup L related to SEQ ID NO: 12.
84. Claims in SuperGroup L related to SEQ ID NO: 14.

SuperGroup M. Claim 36, drawn to **uses of a nucleic acid molecule** in the manufacture of treatment, classified in class 536, subclass 23.1. Divided into the following Groups:

85. Claims in SuperGroup M related to SEQ ID NOs: 1/2.
86. Claims in SuperGroup M related to SEQ ID NOs: 3/4.
87. Claims in SuperGroup M related to SEQ ID NOs: 5/6.
88. Claims in SuperGroup M related to SEQ ID NOs: 7/8.
89. Claims in SuperGroup M related to SEQ ID NOs: 9/10.
90. Claims in SuperGroup M related to SEQ ID NOs: 11/12.
91. Claims in SuperGroup M related to SEQ ID NOs: 13/14.

SuperGroup N. Claim 37, drawn to **uses of an antibody** in the manufacture of treatment, classified in class 530, subclass 387.1. Divided into the following Groups:

92. Claims in SuperGroup N related to SEQ ID NO: 2.
93. Claims in SuperGroup N related to SEQ ID NO: 4.
94. Claims in SuperGroup N related to SEQ ID NO: 6.
95. Claims in SuperGroup N related to SEQ ID NO: 8.
96. Claims in SuperGroup N related to SEQ ID NO: 10.
97. Claims in SuperGroup N related to SEQ ID NO: 12.
98. Claims in SuperGroup N related to SEQ ID NO: 14.

SuperGroup O. Claims 38-39, drawn to **methods** for screening for modulators **using recombinant expression** of a polypeptide in a (transgenic) animal, classified in class 800, subclass 3. Divided into the following Groups:

99. Claims in SuperGroup O related to SEQ ID NOs: 1/2.
100. Claims in SuperGroup O related to SEQ ID NOs: 3/4.
101. Claims in SuperGroup O related to SEQ ID NOs: 5/6.
102. Claims in SuperGroup O related to SEQ ID NOs: 7/8.
103. Claims in SuperGroup O related to SEQ ID NOs: 9/10.
104. Claims in SuperGroup O related to SEQ ID NOs: 11/12.
105. Claims in SuperGroup O related to SEQ ID NOs: 13/14.

SuperGroup P. Claim 40, drawn to **methods** for determining disposition to a disease involving levels of polypeptide in a mammalian subject, classified in class 530, subclass 412. Divided into the following Groups:

106. Claims in SuperGroup P related to SEQ ID NO: 2.
107. Claims in SuperGroup P related to SEQ ID NO: 4.
108. Claims in SuperGroup P related to SEQ ID NO: 6.
109. Claims in SuperGroup P related to SEQ ID NO: 8.
110. Claims in SuperGroup P related to SEQ ID NO: 10.
111. Claims in SuperGroup P related to SEQ ID NO: 12.
112. Claims in SuperGroup P related to SEQ ID NO: 14.

SuperGroup Q. Claim 41, drawn to **methods** for determining disposition to a disease involving levels of nucleic acids in a mammalian subject, classified in class 536, subclass 23.1. Divided into the following Groups:

113. Claims in SuperGroup Q related to SEQ ID NOs: 1/2.
114. Claims in SuperGroup Q related to SEQ ID NOs: 3/4.
115. Claims in SuperGroup Q related to SEQ ID NOs: 5/6.
116. Claims in SuperGroup Q related to SEQ ID NOs: 7/8.
117. Claims in SuperGroup Q related to SEQ ID NOs: 9/10.
118. Claims in SuperGroup Q related to SEQ ID NOs: 11/12.
119. Claims in SuperGroup Q related to SEQ ID NOs: 13/14.

3. The inventions (Groups 1-119) are distinct, each from the other because of the following reasons. The Examiner will first demonstrate distinctness among SuperGroups, then among the members within each SuperGroup.

The DNA of SuperGroup B is related to the proteins of SuperGroup A by virtue of the fact that the DNA encodes the proteins. The DNA molecule has utility for the recombinant production of the proteins in a host cell. Although the DNA and the proteins are related, they are distinct inventions because the protein product can be made by other and materially distinct processes, such as purification from a natural source. Furthermore, DNA can be used for processes other than the production of proteins, such as nucleic acid hybridization assays. Therefore, SuperGroups A and B are patentably distinct. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The proteins of SuperGroup A and the antibodies of SuperGroup C are related by virtue of being the cognate antigen (protein) necessary for the production of the antibody. Although the protein and antibody are related due to the necessary steric complementarity of the two, they are distinct inventions because they are functionally distinct chemical entities and because the proteins can be used in processes materially distinct from the process to produce antibody, such as in a enzyme activity assays. Furthermore, the proteins can be made using other and materially distinct processes from those used to make an antibody; for example, the proteins can be made using organic synthesis while antibody production can be *in vivo*. Therefore, SuperGroups A and C are patentably distinct. Because these inventions are distinct for the reasons given above

and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The products of SuperGroup A (proteins) are related to the methods of SuperGroups D, E, G, H, J, K, and M-Q by virtue of the related DNAs and/or antibodies and/or non-isolated proteins used in the methods. However, none of these methods utilize or produce the protein. The methods are not disclosed as being used with the proteins. Thus, SuperGroup A is patentably distinct from SuperGroups D, E, G, H, J, K, and M-Q. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The products of SuperGroup A (proteins) are related to the methods of SuperGroups F, I, and L are related as product of process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case, the proteins can be used for a materially different process of using that product, such as in the production of antibodies *in vivo*. Thus, SuperGroup A is patentably distinct from SuperGroups F, I, an L. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification OR because these inventions are distinct for the reasons given above and the search required for SuperGroup A is not required for SuperGroup L, restriction for examination purposes as indicated is proper.

SuperGroup B, drawn to nucleic acid molecules, and SuperGroup C, drawn to antibodies, are related by virtue of the polypeptides that are encoded by the nucleic acid molecules and

necessary for the production of the antibody. However, the nucleic acid molecule itself is not necessary for antibody production and both are wholly different compounds having different compositions and functions. Therefore, SuperGroups B and C are patentably distinct. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The products of SuperGroup B (nucleic acid molecules) are related to the methods of SuperGroups D, F, I, K, L, N, P, and Q by virtue of the related proteins and/or antibodies and/or non-isolated DNAs used in the methods. However, none of these methods utilize or produce the nucleic acid molecules. The methods are not disclosed as being used with the nucleic acid molecules. Thus, SuperGroup B is patentably distinct from SuperGroups D, F, I, K, L, N, P, and Q Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The products of SuperGroup B (nucleic acid molecules) are related to the methods of SuperGroups E, G, H, J, M, and O are related as product of process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case, the nucleic acid molecules can be used for a materially different process of using that product, such as in the production of a recombinant protein from the expression of the nucleic acid molecule in a host cell. Thus, SuperGroup B is patentably distinct

from SuperGroups E, G, H, J, M, and O. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The products of SuperGroup C (antibodies) are related to the methods of SuperGroups D, K, and N are related as product of process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (M.P.E.P. § 806.05(h)). In the instant case, the antibodies can be used for a materially different process of using that product, such as in the purification of the antigen protein using column chromatography wherein the column resin is linked to the antibody. Thus, SuperGroup C is patentably distinct from SuperGroups D, K, and N. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification OR because these inventions are distinct for the reasons given above and the search required for SuperGroup C is not required for SuperGroup N, restriction for examination purposes as indicated is proper.

The products of SuperGroup C (antibodies) are related to the methods of SuperGroups E-J, L, M, and O-Q by virtue of the related proteins and/or nucleic acid molecules used in the methods. However, none of these methods utilize or produce the antibodies. The methods are not disclosed as being used with the antibodies. Thus, SuperGroup C is patentably distinct from SuperGroups E-J, L, M, and O-Q. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The methods of SuperGroups D-Q are all related by virtue of the proteins that are encoded by the nucleic acid molecules and that are antigen to the antibodies, wherein said proteins, nucleic acid molecules, and antibodies are used in the methods. However, these methods use wholly different process steps and reagents to produce wholly different products. Furthermore, these methods are not disclosed as being used together. Therefore, the methods of SuperGroups D-Q are patentably distinct, each from the other. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification OR because these inventions are distinct for the reasons given above and the search required for SuperGroup D is not required for SuperGroup F OR because these inventions are distinct for the reasons given above and the search required for SuperGroup M is not required for SuperGroup Q, restriction for examination purposes as indicated is proper.

The Groups within SuperGroup B (Groups 8-14) are related to each other as nucleic acid molecules encoding proteins having particular expression patterns in humans. However, these nucleic acid molecules have distinct structures; no mention of any relation between the structures is noted in the specification. Moreover, these nucleic acid molecules encode proteins, which each have distinct functional properties catalyzing unique reactions and/or acting as functional molecules (activators, repressors, etc.) in humans as based on their expression. Furthermore, these nucleic acid molecules encode proteins having distinct structural properties with varying amino acid sequences, and thus varying nucleic acid sequence, lacking any consensus in the structure or function among the Groups. Thus, members of SuperGroup B (Groups 8-14) are patentably distinct, each from the other.

The Groups within SuperGroup A (Groups 1-7) are related as proteins having particular expression patterns in humans. These proteins are distinct from each other for the reasons cited above for their encoding nucleic acid molecules. Thus, members of SuperGroup A (Groups 1-7) are patentably distinct, each from the other.

The Groups within SuperGroup C (Groups 14-21) are related as antibodies antigen to proteins having particular expression patterns in humans. These antibodies are distinct from each other for the reasons cited above for their antigen proteins and the encoding nucleic acid molecules of the antigen proteins. Thus, members of SuperGroup C (Groups 14-21) are patentably distinct, each from the other.

The methods of SuperGroups D-Q are related, within their respective SuperGroups, as methods of using distinct nucleic acid molecules, or the distinct enzymes themselves, or distinct antibodies. The methods within each SuperGroup are distinct from every other method in the SuperGroup for the reasons cited above for the distinctness of the nucleic acids and/or the proteins and/or the antibodies. Thus, members of SuperGroup D are patentably distinct, each from the other. Members of SuperGroup E are patentably distinct, each from the other. Members of SuperGroup F are patentably distinct, each from the other. Members of SuperGroup G are patentably distinct, each from the other. Members of SuperGroup H are patentably distinct, each from the other. Members of SuperGroup I are patentably distinct, each from the other. Members of SuperGroup J are patentably distinct, each from the other. Members of SuperGroup K are patentably distinct, each from the other. Members of SuperGroup L are patentably distinct, each from the other. Members of SuperGroup M are patentably distinct, each from the other. Members of SuperGroup N are patentably distinct, each from the other.

Members of SuperGroup O are patentably distinct, each from the other. Members of SuperGroup P are patentably distinct, each from the other. Members of SuperGroup Q are patentably distinct, each from the other.

Due to the large number of Groups, the Examiner will comment on the nature of the search required for the Groups. Each of the seven disclosed nucleic acid molecules is described by structure and an expression pattern. No relationship, such as a consensus sequence, is described between the sequences. Thus, a search for the sequence any one nucleic acid molecule will not overlap with any other sequence search. The same comments can be made of the protein and antibody products. Thus, the search of any two of these Groups together would result in a search burden on the Examiner.

Election

4. A telephone call was made to Christina Karnakis on July 1, 2002 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 C.F.R. § 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(i).

Conclusion

5. A complete response to the instant Office action must include an election of invention (a single Group, not SuperGroup) to be examined.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen M Kerr whose telephone number is (703) 305-1229. The examiner can normally be reached on Monday through Friday, from 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathupura Achutamurthy can be reached on (703) 308-3804. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0294 for regular communications and (703) 305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

KMK
September 3, 2002